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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,867	06/24/2003	Byoung Youl Song	122988-05005248	1337
43569 7590 05/18/2007 MAYER, BROWN, ROWE & MAW LLP 1909 K STREET, N.W. WASHINGTON, DC 20006			EXAMINER NGUYEN, DUSTIN	
			ART UNIT 2154	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/601,867	<b>Applicant(s)</b> SONG ET AL.	
	<b>Examiner</b> Dustin Nguyen	<b>Art Unit</b> 2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 June 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. Claims 1–21 presented for examination.

### *Claim Objections*

2. Claim 17 is objected to because of the following informalities: “anther” should be corrected as “another”. Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. The following terms lack antecedent basis:

- I. the compatible xBXML message - claim 1
- II. the eBXML message - claim 1.

### *Claim Rejections - 35 USC § 101*

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5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. It appears claim 1 would reasonably be interpreted by one of ordinary skill as a system of software per se, failing to fall within a statutory category of invention. Applicants' disclosure contains no explicit or deliberate definition for the term "client system", and in the context of the disclosure and claims in question, one of ordinary skill would reasonably interpret the "client system" as software applications. As such, the system of software alone is not a machine, and it is clearly not a process, manufacture nor composition of matter.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ed Ort, "Web Services Developer Pack Part 1: Registration and the JAXR API", [ hereinafter Ort ], in view of Qusay Mahmoud, "Registration and Discovery of Web Services Using JAXR with XML registries such as UDDI and ebXML", [ hereinafter Mahmoud ].

8. As per claim 1, Ort discloses the invention as claimed including an UDDI web service registry system based on an ebXML registry [ Figure, page 2 ] comprising:

a first client system for supporting a web service based on an UDDI protocol and transceiving an UDDI message [ i.e. UDDI API describes SOAP messages that are used to publish an entry in a registry and those that are used to discover an entry in a registry ] [ “UDDI API” and “SOAP”, pages 8-10 ];

an UDDI registry for processing a service request of the UDDI message [ i.e. UDDI registry as a “Yellow pages” for Web service ] [ “UDDI”, pages 5 and 6 ];

a second client system for supporting a web service based on an ebXML protocol and transceiving an ebXML message [ i.e. ebXML provides a comprehensive B2B framework for business collaboration in a global electronic marketplace ] [ “ebXML”, page 10 ];

an ebXML registry for processing service requests of the compatible ebXML message [ i.e. parties register their CPPs in an ebXML registry ] [ “ebXML”, pages 10 and 11 ]; and

an UDDI service module for transforming the UDDI message into a compatible ebXML message [ i.e. transforms the request into an equivalent request that is based on the specification of the target registry ] [ “Client and Providers”, page 12 ].

Ort does not specifically disclose transmitting the ebXML message to the ebXML registry.

Mahmoud discloses transmitting the ebXML message to the ebXML registry [ i.e. ebXML actual registry data ] [ Figure 3; and page 5 ].

It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Ort and Mahmoud because the teaching of Mahmoud would provide a method for access, publish, and query such XML registries as UDDI and ebXML registries [ Mahmoud, "Conclusion", page 17 ].

9. As per claim 2, Mahmoud discloses includes a module for transmitting/receiving an ebXML message to/from the ebXML registry through an ebXML message application program [ i.e. ebXML provider ] [ Figures 3 and page 5 ].

10. As per claim 3, Mahmoud discloses wherein the second client system further includes a module for transmitting/receiving an UDDI message to/from the UDDI registry or the UDDI service module through an UDDI message application program [ i.e. UDDI provider ] [ Figure 3; and page 5 ].

11. As per claim 4, Ort discloses wherein the UDDI service module includes an interface for transceiving the UDDI message, an analysis unit for analyzing a service request of the UDDI message, a data transform unit for transforming an UDDI message into a compatible ebXML message according to an ebXML protocol, a generation unit for generating the transformed ebXML request message [ i.e. receive request, transform request and pass request to registry provider ] [ "Clients and Providers", page 12 ]. Ort does not specifically disclose a communication module for transmitting the generated ebXML request message to the ebXML registry. Mahmoud discloses a communication module for transmitting the generated ebXML

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request message to the ebXML registry [ i.e. ebXML actual registry data ] [ Figure 3; and page 5 ]. It would have been obvious to a person skill in the art at the time the invention was made to combine the teaching of Ort and Mahmoud because the teaching of Mahmoud would provide a method for access, publish, and query such XML registries as UDDI and ebXML registries [ Mahmoud, "Conclusion", page 17 ].

12. As per claim 5, Ort discloses wherein the data transform unit transforms the UDDI message into an ebXML message having an update/registration request in accordance with an ebXML protocol depending on whether or not there exists an information storage key in the ebXML registry, in case the analyzed UDDI message request is an information storage request [ i.e. businesskey or servicekey ] [ "UDDI Schema", pages 6 and 7 ].

13. As per claim 6, Ort discloses wherein the data transform unit transforms the UDDI message into an ebXML message having an ebXML instance cancellation/deletion request depending on whether or not there exists reference or related information between a to-be-deleted instance and another instance in the ebXML registry, in case the analyzed UDDI message request is a registration of a deletion [ i.e. delete service ] [ "UDDI API", page 8; "Registration Program", page 18 ].

14. As per claim 7, Ort discloses wherein the data transform unit transforms the UDDI message into an ebXML query message data having an organization instance as a query object when the analyzed UDDI request message includes a query response of a business entity, the

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UDDI message into an ebXML query message data having a service instance as a query object when the UDDI message includes a query response of a business service, the UDDI message into an ebXML query message data having a service binding instance as a query object when the UDDI message includes a query response of a binding template, and the UDDI message into an ebXML query message data having a specification link instance, a classification scheme instance and a classification node instance when the UDDI message includes a query response of a grouping model [ i.e. businessEntity, businessService, binding template and tModel ] [ “UDDI Schema”, pages 6 and 7 ].

15. As per claim 8, Ort discloses wherein the UDDI service module transforms the ebXML response message received from the ebXML registry into a compatible UDDI message according to an UDDI protocol and then transmits the UDDI message to a client system that requested a service [ i.e. transform the request into an equivalent request based on the specification of the target request ] [ “Clients and Providers”, page 12 ].

16. As per claim 9, Ort wherein the UDDI service module includes a communication module for transceiving the ebXML message from the ebXML registry, an analysis unit for analyzing a response type of the ebXML message, a data transform unit for transforming the ebXML message into a compatible UDDI message based on the analysis result of the analysis unit, a generation unit for generating the transformed UDDI result message and an interface for transmitting the generated UDDI result message to a client system that requested a service [ i.e.



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returns response, transform the response and return to client ] [ 4, 5, Figure on page 12; and “Clients and Providers”, page 12 ].

17. As per claim 10, Ort discloses wherein the UDDI service module further includes a mapping module unit for performing a mapping process and managing compatibility and a data transform between UDDI-ebXML messages transformed by the UDDI message data transform unit and the ebXML message data transform unit [ i.e. the service interface maps to the businessService data structure, and ServiceBinding to bindingTemplate ] [ “JAXR Packages”, pages 12 and 13 ].

18. As per claim 11, Ort discloses wherein the data transform unit, in case information is not sufficient for transforming the ebXML message into a compatible UDDI message, receives information from an ebXML UDDI data extension unit separately installed in the ebXML registry and then reconstitutes an UDDI message [ i.e. attribute extensible ] [ “ebXML”, pages 10 and 11 ].

19. As per claim 12, Ort discloses wherein the data transform unit transforms the ebXML message into an UDDI message having a response of an error code or a result code according to a registration process result of the ebXML registry in case the analyzed ebXML message is a registration response [ i.e. search result to be returned ] [ “Search Criteria”, pages 19 and 20 ].

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20. As per claim 13, Ort discloses the data transform unit transforms the ebXML message into an UDDI message having a response based on an instance in received information or an error-processed response depending on whether or not a response result conforms to a query object in case the analyzed ebXML message type is a query response [ i.e. QueryManager ] [ pages 18-20 ].

21. As per claim 14, Ort discloses wherein the data transform unit transforms the ebXML message into an UDDI message having a business entity element in case a query object of the analyzed ebXML message is an organization instance, the ebXML message into an UDDI message having a business service element in case a query object of the ebXML message is a service instance, the ebXML message into an UDDI message having a binding template element in case a query object of the ebXML message is a service binding instance, the ebXML message into an UDDI message having a grouping model element in case a query object of the ebXML message is a specification link instance, a classification link instance or a classification node instance [ “JAXR Packages”, pages 12 and 13 ].

22. As per claim 15, it is rejected for similar reasons as stated above in claims 1 and 5.

Furthermore, Ort discloses transforming the received UDDI message into a compatible ebXML message having an update request according to an ebXML protocol in case there exists the information storage key; transforming the received UDDI message into a compatible ebXML message having a registration request according to an ebXML protocol in case the information

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storage key does not exist [ i.e. Life Cycle Management describes activities such as registering a business or updating a Web service registration ] [ “Get the LifeCycleManager”, pages 16 and 17; and “Step 2: Search the registry”, pages 18-20 ].

23. As per claim 16, Ort discloses wherein the step (c) is carried out in case a service request of the UDDI message is an information storage request [ “Create Objects for Inclusion in the Registry”, pages 17 and 18 ].

24. As per claim 17, it is rejected for similar reasons as stated above in claim 6. Furthermore, Ort discloses checking whether there exists reference or related information between a to-be-deleted instance and another instance in the ebXML registry; transforming the UDDI message into a compatible ebXML message having a cancellation request of an ebXML instance according to an ebXML protocol in case there exists the reference or related information between the to-be-deleted instance and another instance; transforming the UDDI message into a compatible ebXML message having a deletion request of an ebXML instance according to an ebXML protocol in case the reference or related information do not exist between the to-be-deleted instance and another instance; and transmitting the transformed ebXML message to an ebXML registry [ i.e. deleteServices ] [ pages 8, 12 and 13 ].

25. As per claim 18, it is rejected for similar reasons as stated above in claim 7.

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26. As per claim 19, it is rejected for similar reasons as stated above in claims 1, 7, 12 and 13.

27. As per claim 20, it is rejected for similar reasons as stated above in claims 13 and 14.

28. As per claim 21, it is rejected for similar reasons as stated above in claim 11.

29. A shortened statutory period for response to this action is set to expire **3 (three) months and 0 (zero) days** from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of the application (see 35 U.S.C 133, M.P.E.P 710.02, 710.02(b)).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dustin Nguyen whose telephone number is (571) 272-3971. The examiner can normally be reached on flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached at (571) 272-1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dustin Nguyen

Examiner

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A handwritten signature in black ink, appearing to read 'Dustin', is written over the word 'Examiner'.